

Claims:

1) Method of design of a verifiably secure, authenticatable, and legally enforceable e-business process comprising the steps of :

- a) analyzing the chain of events occurring in said e-business process to identify a sequence of event chain steps;
- b) evaluating each step of said event chain for nature and level of risk in each of the following risk categories:
  - i) identity risk (who);
  - ii) information integrity risk (what);
  - iii) time-of-event risk (when);
  - iv) enforceability risk (how);
  - v) confidentiality risk (access); and
  - vi) personal information privacy risk;
- c) mapping, for each evaluated risk level in each category, a risk mitigation segment architecture;
- d) selecting, for each segment, at least one risk mitigation technique sufficient to provide a preselected level of risk reduction, generate a digital receipt that is independently verifiable by a trusted third party as to time, sequence and nature of said events, and provide information about said events and said architecture itself that has verifiable integrity for legal enforceability as a verifiable digital chain of trust for said e-business process.

2) Method as in claim 1 wherein said segments are:

- a) Trusted Identity Authentication (who);
- b) Trusted Information Integrity (what);
- c) Trusted Time (when);
- d) Trusted Digital Receipt (how);
- e) Trusted Access; and
- f) Personal Information Privacy.

3) Method as in claim 2 wherein said Trusted Information Integrity segment comprises building blocks of:

- a) Identity Registration;

- b) Identity certification Life Cycle;
  - c) Identity Certificate Verification; and
  - d) Signature Creation Data Life Cycle.
- 4) Method as in claim 2 wherein said Trusted Information Integrity segment comprises building blocks of:
- a) Digital Fingerprint;
  - b) Electronic Signature Creation; and
  - c) Electronic Signature Verification.
- 5) Method as in claim 2 wherein said Trusted Time segment comprises building blocks of:
- a) Legal Time Source;
  - b) Time Synchronization; and
  - c) Time Stamping.
- 6) Method as in claim 2 wherein said Trusted Digital Receipt segment comprises building blocks of
- a) Identity Electronic Forensic Evidence;
  - b) Record Electronic Forensic Evidence;
  - c) Time Electronic Forensic Evidence;
  - d) Digital Receipt Electronic Forensic Evidence;
  - e) Digital Receipt Storage and Archival; and
  - f) Digital Receipt Retrieval and Verification.
- 7) Method as in claim 2 wherein said Trusted Access segment comprises building blocks of
- a) Transmission and Receipt of Electronic Record;
  - b) Storage of Electronic Record;
  - c) Archival of Electronic record; and
  - d) Retrieval and Verification of Electronic Record.
- 8) Method as in claim 2 wherein said Personal Information Privacy segment is comprised of building blocks of:
- a) Notice and Consent of Data Subject
  - b) Access and Openness;
  - c) Safeguard of Record;
  - d) Retention and Destruction of Record; and

e) Complaint and Redress.

9) Method as in claim 2 wherein said segments comprise a plurality of components having elements.

10) An Internet business method for delivery of digital trust services for e-commerce to users of e-business processes comprising:

a) establishing a website having secure web pages assignable to individual users; and  
b) providing via said pages at least one of consultation, communication, services, information, education and links relating to:

i) analysis of the chain of events occurring in said e-business process to identify a sequence of event chain steps;

ii) evaluation of at least one step of said event chain for at least one of nature and level of risk in each of the following risk categories:

- a. identity risk;
- b. information integrity risk;
- c. time-of -event risk;
- d. enforceability risk;
- e. confidentiality risk;
- f. privacy risk;

iii) mapping, for each evaluated risk level in each category, a risk mitigation segment architecture; and

iv) selection, for at least one selected segment, risk mitigation techniques sufficient to provide a preselected level of risk reduction, generate a digital receipt that is independently verifiable by a trusted third party as to time, sequence and nature of said events, and provide information about said events and said architecture itself that has verifiable integrity for legal enforceability as a verifiable digital chain of trust for said e-business process.